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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,640	09/29/2005	Yasumasa Yoshitomi	4918-0104PUS1	5472
2292 7590 10/05/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER AHMED, SHEEBA	
			ART UNIT 1773	PAPER NUMBER
			NOTIFICATION DATE 10/05/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/551,640

Applicant(s)

YOSHITOMI ET AL.

Examiner

Sheeba Ahmed

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 9/29/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Preliminary Amendment

1. The Preliminary Amendment submitted on September 9, 2005 has been entered in the above-identified application. Claims 3, 4, 6, and 7 have been amended. Claims 8-14 have been added. **Claims 1-14 are now pending.**

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, it is unclear whether the phrase "having a reflectance of 0.5% or smaller at a wavelength of 550nm and has a standard deviation of S of 0.3 or smaller" refers back to the protective film or the antireflection layer.

It is unclear what is meant by "while the thermoplastic film is brought into contact with a thermally conductive material having a surface temperature higher than [a glass transition temperature of the thermoplastic film - 130°C] and lower than the glass transition temperature of the thermoplastic film" in claim .

In claim 12, the use of the term "based" renders the claim indefinite because the claim includes elements not actually disclosed (those encompassed by "based"), thereby rendering the scope of the claim unascertainable.

Appropriate correction or clarification is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6, 8-11, 13, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Takematsu et al. (US 6,207,263)

Takematsu et al. disclose an anti-reflection film having a hard coat layer 4, an intermediate refractive index layer 3, a high refractive index layer 2 and a low refractive index layer 1 formed in this sequence on a transparent base film 5. The anti-reflection film is used in a display in which the surface of a transparent base plate prevents the reflection of light and transmits necessary visual information inside the transparent base plate, and enables an observer to clearly discern the visual information. The low refractive index layer 1 comprising a silicon oxide layer and the thickness of each low refractive index layer is 80 to 110 nm and the thickness of each high refractive index layer is 30 to 110 nm. The hard coat layer 4 has irregularities on

Art Unit: 1773

its surface in contact with the intermediate refractive index layer 3, and the hard coat layer 4 is provided on the transparent base film 5 directly or via a primer layer 7 and/or an adhesive layer 9, as illustrated in FIG. 6. The high refractive index layer and the low refractive index layer are each a layer provided by vacuum coating.

The transparent base sheet of the present invention is formed from a ceramic material such as glass, or a transparent stretched or unstretched plastic film. Thermoplastic resins can be used, such as polyester, polyamide, polyimide, polypropylene, polymethylpentene, polyvinyl chloride, polyvinyl acetal, polymethyl methacrylate, polycarbonate, and polyurethane. The thickness of the hard coat layer 4 is preferably 0.5 to 6 microns. The high refractive index layer is preferably composed of a sputter film of ITO. A polarizing plate having the so constituted anti-reflection film 10 laminated on a polarizer, or a cathode-ray tube with the anti-reflection film 10 bonded onto the surface gives a sharp image and is reflection-free (*See entire document*).

With regards to the limitations of the photoelastic coefficient and the saturated water absorption for the thermoplastic film and the limitations of the reflectance and standard deviation, the Examiner takes the position that such property limitations must be inherent in the antireflection laminate taught by Takematsu et al. given that the structure of the laminate as well the chemical composition of each layer as taught by Takematsu et al. and that of the claimed invention are identical.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takematsu et al. (US 6,207,263) in view of Nakamura (US 2001/0035929).

Takematsu et al., as discussed above, do not teach that the transparent substrate may be a norbornene polymer.

However, Nakamura et al. disclose an anti-glare and anti-reflection film which comprises, on a transparent support, at least one anti-glare layer including particles, and a low refractive index layer superposed in this order. A polarizing plate and an image display device using the anti-glare and anti-reflection film are also disclosed. As the transparent support of the anti-glare and anti-reflection film, plastic films are preferably used. Examples of polymers which form a plastic film include cellulose esters (e.g., triacetyl cellulose, diacetyl cellulose), polyamides, polycarbonates, polyesters (e.g., polyethylene terephthalate, polyethylene naphthalate), polystyrenes, and polyolefins and norbornene-series polyolefins.

Nakamura et al. clearly teach that the above-mentioned plastics are equivalents when used as the transparent substrate in a multilayer structure for a polarizing plate. Hence, it would have been obvious to replace one with the other given that substitution

Art Unit: 1773

of one known element for another would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheeba Ahmed whose telephone number is (571)272-1504. The examiner can normally be reached on Monday-Friday from 8am to 2pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571)272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Sheeba Ahmed
Art Unit 1773
September 8, 2007